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Unit A1.3, Lesson 11: Practice Problems Name _____

Warm-Up

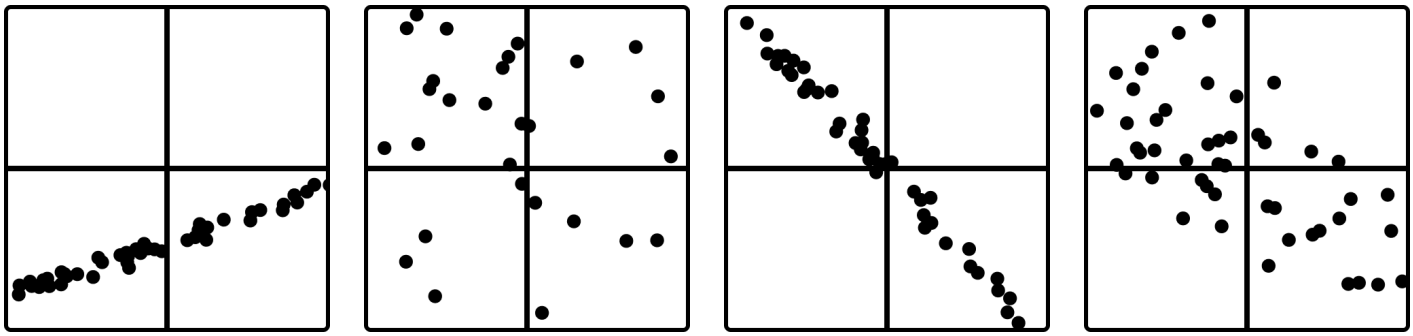
1. Order these numbers from least to greatest.

$$\frac{4}{5} \qquad 0.07 \qquad -0.2 \qquad -\frac{9}{10} \qquad 0.65$$

Practice

2. Match each scatter plot to the words that describe it.

No Linear Relationship **Weak Linear Relationship** **Strong Linear Relationship**



3. Which number could be the correlation coefficient for this scatter plot?

A. 0.4

B. -0.4

C. 0.9

D. -0.9

Explain your thinking.

4. A scatter plot is found to have a correlation of $r = 0.85$. What does this tell you about the data?

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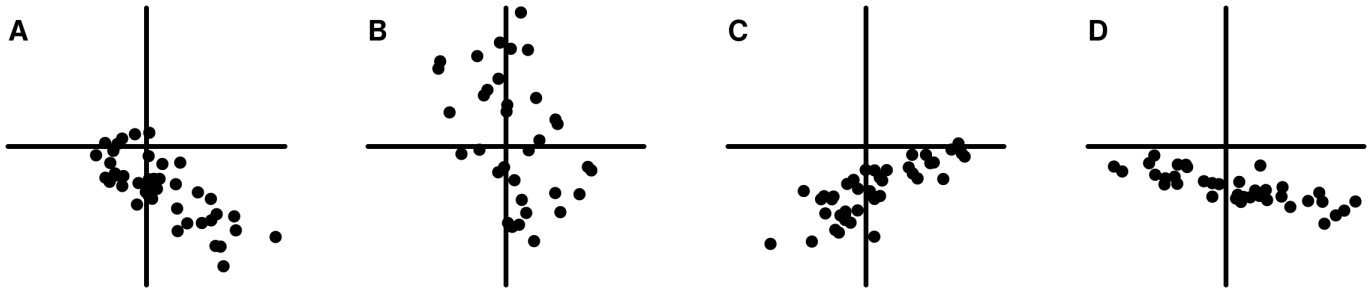
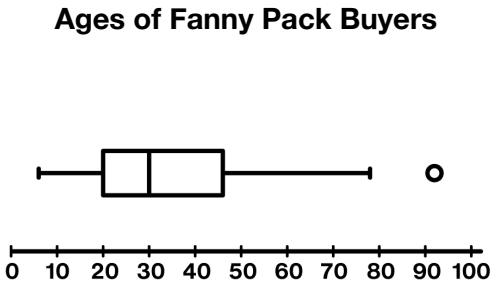
5. Select **all** of the scatter plots that have an r-value of -0.8.



An online store is curious about who buys the fanny packs they sell. The box plot represents the ages of people who have bought fanny packs this year.

6.1 What is the median age?

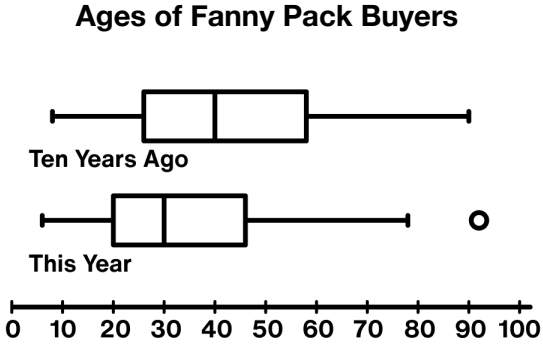
6.2 What is the interquartile range?



7. The box plots represent the ages of people who bought fanny packs this year compared to ten years ago.

   According to these data sets, which has changed since ten years ago?

   A. More **younger** people are buying fanny packs now than ten years ago.
   B. More **older** people are buying fanny packs now than ten years ago.



Reflect

1. Put a heart next to the problem you feel most confident about.
2. Use the space below to ask a question or share something you are proud of.

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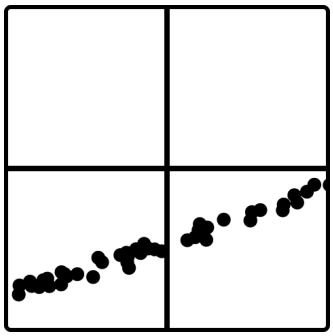
Answer Key

Warm-Up

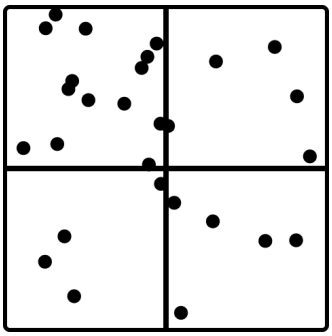
1. $-\frac{9}{10}$, -0.2 , 0.07 , 0.65 , $\frac{4}{5}$

Practice

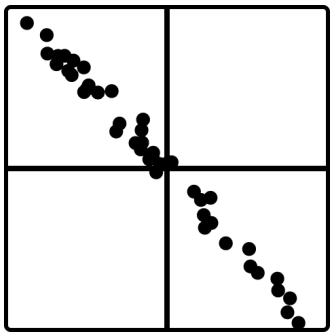
2.



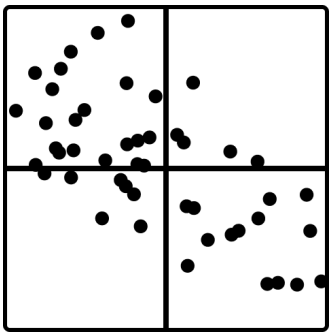
Strong Linear Relationship



No Linear Relationship



Strong Linear Relationship



Weak Linear Relationship

3. 0.4. *Explanations vary*. The trend is going up as x increases, so I know that the correlation coefficient is positive, but the points are not that close to a line, so I chose 0.4. The correlation is not that strong, so it has to be 0.4 or -0.4. I picked 0.4 because the trend is going in the direction of a positive slope.

4. This tells me that the data has a strong, positive correlation.

5. A and D

6.1 30 years

6.2 26 years

7. More **younger** people are buying fanny packs now than ten years ago.